

COVER SHEET

Responsible Agency: U.S. Department of Energy (DOE)

Title: Kentucky Pioneer Integrated Gasification Combined Cycle (IGCC) Demonstration Project Draft Environmental Impact Statement (DEIS) (DOE/EIS-0318)

Location: Clark County, Kentucky

Contacts:

For further information on this environmental impact statement (EIS), call:
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or contact:

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For further information on the DOE *National Environmental Policy Act* (NEPA) process, call:
1-800-472-2756
or contact:

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Abstract: The Kentucky Pioneer IGCC Demonstration Project DEIS assesses the potential environmental impacts that would result from a proposed DOE action to provide cost-shared financial support for construction and operation of an electrical power station demonstrating use of a Clean Coal Technology in Clark County, Kentucky. Under the Proposed Action, DOE would provide financial assistance, through a Cooperative Agreement with Kentucky Pioneer Energy, LLC, for design, construction, and operation of a 540 megawatt demonstration power station comprised of two synthesis gas-fired combined cycle units in Clark County, Kentucky. The station would also be comprised of a British Gas Lurgi (BGL) gasifier to produce synthesis gas from a co-feed of coal and refuse-derived fuel pellets and a high temperature molten carbonate fuel cell. The facility would be powered by the synthesis gas feed. The proposed project would consist of the following major components: (1) refuse-derived fuel pellets and coal receipt and storage facilities; (2) a gasification plant; (3) sulfur removal and recovery facilities; (4) an air separation plant; (5) a high-temperature molten carbonate fuel cell; and (6) two combined cycle generation units. The IGCC facility would be built to provide needed power capacity to central and eastern Kentucky. At a minimum, 50 percent of the high sulfur coal used would be from the Kentucky region. Two No Action Alternatives are analyzed in the DEIS. Under the No Action Alternative 1, DOE would not provide cost-shared funding for construction and operation of the proposed facility and no new facility would be built. Under the No Action Alternative 2, DOE would not provide any funding and, instead of the proposed demonstration project, Kentucky Pioneer Energy, LLC, a subsidiary of Global Energy, Inc., would construct and operate, a 540 megawatt natural gas-fired power station.

Evaluation of impacts on land use, socioeconomic, cultural resources, aesthetic and scenic resources, geology, air resources, water resources, ecological resources, noise, traffic and transportation, occupational and public health and safety, and environmental justice were included in the assessment.

Public Involvement: Comments on this Draft EIS may be submitted through the end of the comment period. Comments received after the close of the public comment period will be considered to the extent practicable. Comments may be submitted in writing to: DOE-National Energy Technology Laboratory, Attn: Roy Spears, Kentucky Pioneer IGCC Demonstration Project EIS Document Manager, P.O. Box 880, Morgantown, WV 26507-0880.

DOE will conduct two formal public meetings in Kentucky to receive comments on the DEIS. These meetings will be held at the Lexington Public Library, 140 East Main Street, Lexington, Kentucky, and at the Trapp Elementary School, Trapp, Clark County, Kentucky. The dates and times of each meeting will be announced in the *Notice of Availability for the Kentucky Pioneer IGCC Demonstration Project Draft Environmental Impact Statement*. An informal session will be held prior to each meeting, for the public to learn more about the proposed project.